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(54) Method and an apparatus for sensing wheel parameters in a wheel balancing machine.

(57) An apparatus and a method for remotely optically sensing the wheel parameters in a wheel balancing machine includes a source (24) which emits a first sheet of light (24). The light is directed at the wheel and tire assembly (16) and reflects a reflected light therefrom. The reflected light is detected. The location of the junction (18) of the wheel rim and the tire of the wheel as assembly is determined from the reflected light. Means is provided for calculating the radial distance and the axial distance to the junction of the wheel rim based upon the location of the junction measured.

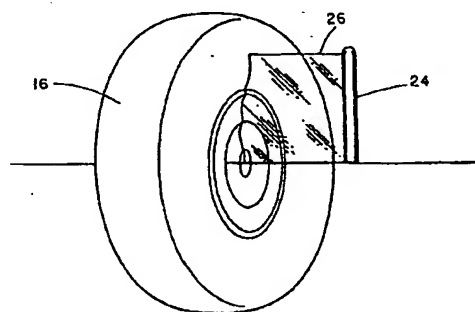


FIG. 3

EP 0 565 320 A3



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# EUROPEAN SEARCH REPORT

Application Number

EP 93 30 2631

| DOCUMENTS CONSIDERED TO BE RELEVANT   |   |  |   |
|---|---|--|---|
| Category  | Citation of document with indication, where appropriate, of relevant passages   | Relevant to claim  | CLASSIFICATION OF THE APPLICATION (Int. CL.5) |
| X   | US-A-5 054 918 (DOWNING ET AL)<br><br>* column 3, line 1 - column 4, line 5;<br>claims 1-7,11-14; figures 1-6,9,10 *<br>* column 6, line 12 - column 8, line 7 *<br>--- | 1-7,<br>14-16,<br>18-20                                      | G01M1/02                                      |
| X   | US-A-3 918 816 (FOSTER ET AL)<br><br>* column 9, line 13 - column 10, line 9;<br>claims 1,2,4,5; figures 1,2 *<br>---   | 1,11-13,<br>17,21  |   |
| X<br>A  | US-A-4 910 411 (TERAGUCHI ET AL)<br>summary<br>* figures 1,4,5 *<br><br>-----   | 1<br>8-11  |   |
|   |   |  | TECHNICAL FIELDS<br>SEARCHED (Int. CL.5)      |
|   |   |  | G01M  |
| The present search report has been drawn up for all claims  |   |  |   |
| Place of search<br><b>THE HAGUE</b>   |   | Date of completion of the search<br><b>22 SEPTEMBER 1993</b> | Examiner<br><b>MUCS A.A.</b>                  |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone<br/> Y : particularly relevant if combined with another document of the same category<br/> A : technological background<br/> O : oral-written disclosure<br/> P : intermediate document</p> <p>T : theory or principle underlying the invention<br/> E : earlier patent document, but published on, or after the filing date<br/> D : document cited in the application<br/> L : document cited for other reasons<br/> &amp; : member of the same patent family, corresponding document</p> |   |  |   |

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